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A COURSE OF CLINICAL LECTURES,

Delivered at the Hôtel Dieu, Paris, for the Session 1842–'43.

BY A. F. CHOMEL, M. D.

LECTURE IV.

CASE I.—*Puerperal metro-peritonitis three days after delivery; complicated with severe pectoral disease. Death—Autopsy.*

At No. 3 of the Salle Saint-Bernard, commenced Dr. Chomel, is a woman who is attacked with puerperal metritis. The disease first appeared at the Maternity Hospital, where the woman was delivered. She tells us that, having suffered a good deal of distress from her position in life, her pregnancy was accompanied from the commencement by a *malaise*, nearly constant; and that when it had reached the seventh month, she suffered so much that she determined on entering the Maternity, where she was soon afterwards delivered. The labour, it appears, was natural, but afterwards there was a very abundant flow of blood, and subsequently severe pain in the hypogastrium.

On the third day after delivery she had a chill, the breasts swelled, and the abdomen became painful. Leeches were applied to the abdomen, which diminished somewhat the intensity of the pain; she had, however, general *malaise* until the seventh day, when she left the hospital and went home in a carriage, which seems to have shaken her a good deal. On reaching her house she was taken with a chill, and with pains in the limbs and lower part of the abdomen. She then determined on entering the Hôtel Dieu, where we found her condition as follows:

At first sight of this patient, there was an air of suffering and oppression. The belly was voluminous and meteoric; touching it gently produced pain, especially when you pressed on the hypogastric region. For two days previously she had had repeated bilious vomiting, with small alvine evacuations. On examining her *per vaginam*, we found the os tincæ soft, and a little sensible; but on introducing the end of the finger into the neck of the uterus, and endeavouring to displace that organ, there was anormal immobility, which seemed due to adhesions, which the fundus has contracted with the adjacent organs. On pressing with the hand on the hypogastric region, whilst the finger of the other hand was in the neck of the uterus, some obscure motions were determined, and we found that the fundus was several inches above the level of the pubis. The finger, on being withdrawn from the vulva, was bathed by a whitish, sticky liquid, somewhat fetid.

This collection of symptoms did not permit us to doubt, for a moment, the existence of a metro-peritonitis, in which the peritoneum was secondarily affected, which most frequently happens; the peritoneum ordinarily inflames after the uterus.

As general symptoms, we had great dryness of the tongue and mouth, with thirst. The skin was hot, the pulse one hundred and forty, and the features very much changed.

This affection differs materially from that which we call post-puerperal metro-peritonitis; it is, as a general rule, a much more severe disease. In our patient, happily, it appeared several days after her delivery; the initial chill occurred on the third day. Now, the more remote the period of the chill is from the day of delivery, the less severe is the disease which supervenes. The post-puerperal metro-peritonitis is, in this respect, like those phlegmasiæ which are produced by exterior causes, and which are always less grave than those which succeed to some general spontaneous cause; whilst puerperal metritis is consecutive to some profound general alteration of the system, having for a principal phenomena one or more chills, and is always a very grave disease. There is always fear of an inflammation, either of the veins, or of the lymphatics; and in either case the disease is serious. We have the more to fear a disease of this nature in our patient, from the fact that an epidemic of this kind is at present reigning at the Maternity, where she was taken sick. Hence our prognosis yesterday was unfavourable, although there were some encouraging symptoms.

To-day her condition has not improved. Her pulse is very frequent, (one hundred and sixty,) and very small. Her features are very much drawn, and her face has an earthy tint, which is always a bad omen. The discharges from the vulva are becoming intolerably fetid. They have the odour characteristic of metritis, where great alteration in the organ has occurred. On examining her this morning, I discovered on the anterior face of the vagina a tumour, with distinct fluctuation, which at first led to the suspicion of a purulent collection; but on introducing a catheter into the bladder, a large quantity of urine escaped; and on reëxamining her, the tumour had disappeared. There was here, therefore, a state of atony of the bladder, inducing retention of urine. It is, besides, a common symptom in women recently delivered; and you should, therefore, always attend to the state of the bladder.

In the course of yesterday she complained of pain in the right side of the chest. On percussion it was found flat; on auscultating her we discovered the respiration obscure below, and superiorly a bellows sound, with bronchial respiration. Here, then, we have a pleuritic effusion, complicating metro-peritonitis. It might happen that the liver, swollen, and pressed upwards, causes the dulness at the inferior portion of the right side. But at the superior portion of the lung respiration is obscure, and otherwise slightly anormal. We must, therefore, admit absolutely a lesion, not only of the pleura, but of the parenchyma of the lung itself. These symptoms, of course, render the prognosis more grave.

A large blister has been applied over the whole anterior surface of the right side of the chest, in the hope of making a favourable revulsion, both for the disease of the abdomen as well as that of the chest. At the same time we prescribed emollient injections, with the addition of the chloride of lime, into the vagina,

with the view of correcting, as much as possible, the fetid nature of the discharges. Mercurial frictions on the abdomen, and purgative enemata, constitute the remainder of the treatment.

[Three days subsequently the patient succumbed. At the autopsy, there was found in the uterus a portion of placenta, with several coagula, surrounded by a sanious fluid, extremely fetid. The size and consistence of the uterus were nearly natural; its walls were in the condition we usually find them in on the eleventh or twelfth day after delivery. The uterine veins contained neither pus nor blood. In the broad ligament only there was a cavity of the size of an almond, filled with purulent matter. The peritoneum was covered with false membranes. In the peritoneal cavity there was nearly a pint of pus. There were false membranes in the pleura, especially about the summit of the lung, as well as upon the convex surface of the liver.]

CASE II.—*Organic affection of the heart—Hypertrophy of the ventricle, with valvular deficiency—General bronchitis—Abdominal tumour caused by the liver—Ascites, and infiltration of the lower extremities, and of the abdominal parietes, following protracted instrumental labour.*

In the same ward is a woman whose case is of great interest. When my attention was first directed to her she was almost in a state of suffocation, such was the extraordinary difficulty of respiration. Her face was swollen, her lips violet, and her lower extremities and abdomen œdematous. When she entered the hospital the preceding evening, the degree of suffocation was such, that a small bleeding was immediately practised. Questioned with regard to the origin and history of her present disease, we could learn only this. She had been lately delivered. (I shall refer to this point, which is important, again presently.) She at first told us that she had always been healthy before her present attack, which occurred about six weeks previously; on being, however, questioned more closely, she finally acknowledged that since the age of fifteen she had been subject to shortness of breath; that she also had laboured under palpitations, and became oppressed whenever she fatigued herself. She told us, besides, that she recollects, since her childhood, when playing with her comrades, that her breathing often became oppressed. And six weeks ago these symptoms became so much aggravated as to oblige her to obtain medical assistance.

This woman is the mother of five children, and does not appear, at least from what she tells us, to have experienced the ordinary effects which successive pregnancies generally produce on the organism. Her last delivery only was tedious, and was instrumental.

The actual condition of the patient led us to suspect the existence of an organic affection of the heart. We asked her if she had ever had an attack of rheumatism, and she answered us in the negative, and persisted, to our reiterated questions, in saying that she knew very well what rheumatism was, but that she had never suffered from it. Here is a negative fact to add to a vast number of positive facts of the same kind that we have collected, and which oppose the doctrine, now so prevalent relative to the coincidence between rheumatism and organic disease of the heart, and which demonstrates how cautious we should be when we draw general conclusions from certain isolated facts. The urine gave no evidence of renal disease. We then directed our attention to the central organ of the circulation. On percussing the præcordial region, we found dulness extending over a surface of nearly four square inches, inducing suspicion of an augmentation, in volume, of the heart. Auscultation was somewhat impeded by a blowing respiration, a veritable, general, sonorous rhonchus; so that it is with difficulty, and not without some precautions, that you can hear the sounds of the heart. But, in auscultating with attention, you distinctly hear a well marked *bruit de souffle*, coinciding with the first sound of the heart, and extending over the whole præcordial region; this sound is very loud near the apex of the organ, proving that it takes place when the ventricle contracts and sends the blood into the auricle. There is, then, hypertrophy of this cavity, with, at the same time, deficiency of the mitral valve, which causes the blood partially to reflow into the ventricle after its contraction. This is the chief cause of the dyspnœa we observe in this patient.

Independently of these organic lesions, the patient, for the last six weeks, has suffered from a catarrhal affection of the lung, which has very much increased the state of oppression in which you have seen her, and has, in part, contributed to the aggravation of the cardiac symptoms, and obliged her to lie by; for, probably, without this accidental pulmonary affection she would have been able for some time to come to attend to her occupations, even with her habitual dyspnœa. On auscultating the chest you hear a sibilant rhonchus extending over the whole of it, mingled on the left side with a little mucous rale. To the hypertrophy of the heart is therefore added a general bronchitis, dating about six weeks, and, in addition, an infiltration of the lower extremities, extending to the abdominal region.

This, however, is not all; the abdomen itself is infiltrated, and is at the same time meteoric; there is some serum, besides, in the cavity of the peritoneum. At first there is some difficulty in ascertaining the existence of ascites, on account of the anasarca of the abdominal integuments, which prevents your feeling the fluctuation. There is a means, however, of overcoming this obstacle. This consists in strongly compressing the abdominal parietes until the fingers are arrested, so to speak, by the sensation of a kind of tense pouch, which is the peritoneum; here you can easily distinguish the fluctuation of a liquid contained in the cavity of the abdomen. There sometimes exist, besides the dropsy, tumours in the abdomen, which, without this precaution, will be distinguished with difficulty. In such cases your exploration should be conducted with still greater attention. Pressure should be made firmly and quickly in such cases; by this means the stratum of fluid between the tumour and your hand is forced back, and you are able to feel the latter. With the aid of this means I have been enabled, in the present case, not only to determine the presence of ascites, but also the existence of a tumour, occupying the right side, and extending towards the left hypochondriac region. What is the nature of this tumour? Is it formed by the uterus anormally developed! I have made a vaginal examination and I have found the neck of the uterus soft, and half opened; but the organ itself is not enlarged, if you consider the recent period of delivery; it does not extend above the pubis; and the hypogastric region is, on percussion, sonorous. Besides, the principal seat of the tumour is the right side, although it extends slightly to the left. When you press upon this region, there is considerable resistance in the right hypochondriac and iliac regions, which continues obliquely across to the left side, where it is less. Is it the liver? Tumours of this

organ are, in general, characterised by a kind of line or border, more or less defined and angular to the touch. This is a character almost constant. In the present case we have been unable to detect this important sign; or, if it exists, it is not well marked, and is masked probably by the œdema of the integuments. In spite, however, of the absence of this symptom, I believe that we have, in reality, an anormal development of the liver. Here, then, is another morbid complication, independent of those we have already discovered to exist.

There are, as you know, primitive, as well as consecutive lesions; the one primary, the other depending on some pre-existing morbid alteration. Now, disease of the liver may certainly be primitive, but most generally it is consecutive to some organic disease of the heart. Sometimes the hepatic symptoms lead to the discovery of the cardiac lesion before the latter had revealed itself by any direct sign. This is a very important means of diagnosis, and one that you should always remember in affections of this nature.

Such is the *ensemble* of the symptoms which I have been able to discover in this patient.

With regard to the heart, I have diagnosticated a hypertrophy of that organ, with valvular deficiency. It is possible that other lesions may exist, but our means of diagnosis of these diseases are yet too imperfect, in spite of all our recent discoveries, to permit us to push our diagnosis any further with certainty. The serum effused into the cavity of the abdomen is a phenomenon of the third order of symptoms, depending on the affection of the liver, in the same manner as the affection of that organ may be a consequence of that of the heart.

The prognosis is very grave. In addition to all the circumstances just enumerated, this patient was delivered at the Maternity by the forceps. After this difficult labour there was no swelling of the breasts; there was no well-marked milk fever; there was a very slight lochial discharge; and finally, the pulmonary symptoms appeared to aggravate all the other phenomena. This catarrhal affection resisted all the means employed to combat it, and the patient, suffering from bronchitis on her entrance into the Maternity, left it in the same state. All these circumstances are serious. We have, moreover, to fear the progress of the anasarca. You know that, in organic affections of the heart, the œdema appears and disappears ordinarily several times before a fatal termination. Whenever patients expose themselves to causes capable of increasing the intensity of the disease, as over fatigue, irregularities of living, moral emotions, the anasarca appears, and then, on the cessation of the cause, disappears to return again, and so on. But when this morbid phenomenon shows itself alone, without other cause than the principal affection, of which it is the ordinary consequence, it persists, without interruption, until the fatal issue of the disease. In our patient the hypertrophy appeared at the same time as the catarrhal affection, and has continued in spite of all treatment; there is, consequently, little hope of the disappearance of these phenomena, because we can in nowise count on the cure of the principal disease.

What can be done in an affection so complicated? Were the patient not in so feeble a condition, bloodletting would be indicated; but in her present state we do not dare to resort to it. We have employed the usual means in such circumstances, as the application of a large blister on the chest; the administration of Kermes Mineral and digitalis internally, to act on the circulatory system, and diminish its force; with purgatives of castor oil, with a drop of croton oil, to procure prompt and abundant evacuations, with mild mucilaginous drinks.

Paris, Dec. 1842.

SULPHATE OF ALUMINA

AS AN ANTISEPTIC AND DETERGENT.

By M. J. Pennypacker, M. D.

Resident Physician at the Philadelphia Hospital.

[Communicated by Professor Dunglison.]

Spruce Street, March 26th, 1843.

My Dear Sir,—In the preface to the fourth edition of my work entitled "New Remedies," just published, I stated, that since the article *Aluminæ Lales* was written, the sulphate of alumina, at my suggestion, had been subjected to numerous trials in the surgical wards of the Philadelphia Hospital, and had been found a valuable antiseptic and detergent to ulcers,—and farther, that the detailed results of the observations of the resident surgeons on this matter would be published by me hereafter. Since that preface was written, I have received the following communication from Dr. Pennypacker, one of the resident medical attendants, which I beg the favour of you to publish in your journal.

Believe me, my dear sir,

Yours respectfully and truly,

Robley Dunglison.

Dr. Clymer.

—

Philadelphia Hospital, March 22d, 1843.

Dear Doctor,—Agreeably to your request, I have made inquiry amongst my colleagues—now in charge of the surgical wards of the house—as to the medicinal value of the sulphate of alumina, applied to irritable, sloughing, gangrenous, or indolent sores.

None of them have kept a regular report of the cases in which it has been used, but they concur in stating it to have acted well, as a stimulant, in indolent conditions of the surface; and in many cases to have effected cures where various other remedies had failed to make an impression. Its antiseptic and detergent properties are considered, amongst us, as established; having found it, in no instance, to disappoint our expectations of removing the loathsome aspect of the sore. My colleagues have used it of different strengths; say from ʒijss. up to ʒiij. of the salt, to ʒvi. of water, and have found that a medium strength, regularly applied, has proved most efficacious. When used of the strength of ʒij. to ʒiij. to the quantity of water above mentioned, they have found it agree well for a time, but it soon becomes too irritating. This accords with my experience in using it.

The following are the cases in which I have tried the salt in question.

Case I. Bed sores over the sacral region of a patient of broken constitution, who had been confined to the dorsal position for several months; the sores were deep, and burrowing in the cellular tissue, and covered with a greenish-yellow adhesive pus, of a very offensive odour. The use of the salt, in the

proportion of ℥iss. to ℥vj. of water, removed the fœtor, and cleansed the sore in two days, but did not stimulate. The patient died in about ten days from the first application.

Case II, was of milk leg, of ten years date. At the time of commencing the use of the salt this leg was large, hard, inelastic, and completely insensible to most applications. At various periods previous to this, pieces of flesh had taken on mortification and come out, leaving always a foul sore difficult to heal. She commenced using the salt in the proportion of ℥ij. to six of water, which had the effect of removing the fœtor, as well as of repressing all tendency to slough; restoring the sensibility in such a degree as to render it necessary to weaken the solution. All the sores were healed in the space of six or eight weeks. This patient is now well, by the aid of the salt and moderate compression.

Case III, was an ulcer on the gastrocnemius muscle, resulting from a badly treated furunculus. The lotion was used of the same strength as in the preceding cases. It caused the sore to granulate and heal rapidly.

I have also used it as an application to indolent ulcers of long standing, but in only a few cases with marked benefit; but I may possibly attribute my want of success to not having employed the remedy long enough, as the testimony of some of my colleagues goes to prove. In one case, a saturated solution was used for more than two weeks, without any stimulant effects.

In summing up the result of my observations on the properties of this salt, I think I may safely infer that, as an antiseptic, it is prompt and powerful; and that it is a valuable addition to our list of therapeutical agents.

With much regard and esteem,
I am, yours truly,
M. J. Pennypacker.

Robley Dunglison, M. D.

CLINICAL LECTURES AND REPORTS.

JEFFERSON MEDICAL COLLEGE.

CLINIC OF PROFESSOR MÜTTER.

Dispensary of Jefferson Medical College, Jan. 18, 1843.

(Reported by H. T. Child.)

LECTURE III.—ON ANKYLOSIS.

(Concluded.)

Treatment.

From what I have already told you, it must be obvious that the treatment will vary essentially in our attempts to cure ankylosis. In the true or complete form of the affection, where the union is cartilaginous, bony, or composed of short and dense bands of fibro-cartilaginous or ligamentous tissue, attempts have been made to establish motion by the application of a machine of sufficient power to break up, either suddenly or by degrees, the cause of the defect; but invariably have these attempts resulted in a failure to accomplish the rupture of the bond of union; or where this has been effected, in acute inflammation of the part and all its usual effects, and sometimes in the death of the patient. Louvrier, of Paris, is the last of those who advocate this plan of treatment, (which had long before this date been practised by Lafond, Hildanus and others, in false ankylosis;) but the recent unfavourable report of the "Academy" relative to his success, will be sufficient to consign his measures "to the tomb of all the capulets."

In striking contrast with this operation of Louvrier are those for the same affection, introduced by my friend Dr. J. Rhea Barton, of Philadelphia. I do not hesitate to assert, that the age has given birth to nothing more brilliant, more profoundly philosophical, more eminently useful, or better calculated to shed lustre upon our science. Two plans of relieving the deformity from stiff joints have been proposed by Dr. Barton. In one, the establishment of an *artificial joint* is the object in view. In the other, *the removal of a portion of one or more of the bones involved, by which a limb flexed at any angle may be rendered straight.* That a false joint might be established by first cutting through a bone, and then keeping up motion between its divided ends, was a point fully established by the experiments of different surgeons, especially Chaussier, Köcler, Sir A. Cooper, and Larrey, and also by the success which had followed the excision of joints, in cases of caries, &c., by Park, Moreau and others; but Dr. Barton was the first to propose the application of the principle in the treatment of ankylosis. The manner of performing the operation will, of course, vary in each case; in one it may be proper to carry the incision through the original joint; in another, through the bone immediately above or below it. In the first case of Dr. Barton's, that of a sailor, in whom the hip-joint had been injured by a fall, and which was characterised by great deformity, the latter operation was performed — the femur being sawed through "at the lower part of its cervix, a little above its root." This plan should always be preferred when practicable, especially where the ankylosis has been the result of previous ulceration of the joint, inasmuch as we avoid by it the risk of exciting anew the disease in its original seat. When the operation succeeds, the false joint may resemble, to a certain degree, an original one, not only in its functions, but also in its anatomical characters. The bones, for example, are tipped with cartilage, and covered with a layer of condensed cellular tissue, which strongly resembles synovial membrane; but usually, instead of this, the bones are united to each other by ligamentous matter, so flexible that it yields to the contractions of the different muscles surrounding the joint, and thus the limb becomes subject to the will, and is almost as useful as before the destruction of its original articulation.

But although this operation of Dr. Barton's is one of the most ingenious and beautiful in surgery, it must not be performed in every case, and without due reflection. In the first place, it is unquestionably a hazardous procedure, and subjects the patient to great danger; and in the second, it is liable to be followed by a return of the defect—bony matter being sooner or later deposited in the connecting medium. I cannot do better, however, than give you the advice of Dr. Barton himself. This operation, he states, is justifiable only under the following circumstances, viz:

"When the patient's general health is good, and his constitution is sufficiently strong; where the rigidity is not confined to the soft parts, but is actually occasioned by a consolidation of the joint; where all the muscles and tendons that were essential to the ordinary movements of the former joint are sound, and not incorporated by firm adhesions with the adjacent structure; where the disease causing the deformity has entirely subsided; where the operation

can be performed through the original point of motion, or so near it that the use of most of the tendons and muscles will not be lost; and finally, where the deformity or inconvenience is such as will induce the patient to endure the pain and incur the risk of an operation."

An operation, similar in principle to this of Dr. Barton's, has been performed according to Professor Samuel Cooper, by Mr. Anthony White, of London.

The second method of operating proposed by Dr. Barton, is intended for the relief of those cases in which, from the size of the joint, and the shape of the limb, it would be hazardous or impossible to attempt the establishment of an artificial joint. So far it has been restricted to operations upon the lower extremities; but in deformities of the upper it would be equally useful. The case operated on by Dr. Barton, a report of which you will find in the American Journal of Medical Sciences for 1838, was one of bony ankylosis of the knee-joint, attended with great angular deformity, the leg forming nearly a right angle with the thigh.

The operation consisted in first exposing the femur just above the patella by a triangular incision, the base of the triangle resting upon the front of the thigh; then removing from it, by means of a small saw, a wedge-like piece, and finally, in gradually bringing the limb down, by a double inclined plane, the inclination of which could be varied at pleasure, to a straight position, and retaining it there until union took place. In order to protect the popliteal artery, and also to steady the fragments by the interlocking of the asperities of each, the incisions with the saw were not carried entirely through the bone, but terminated within a few lines of its posterior surface. The solution of continuity was then rendered complete by an attempt to bend the bone, which caused, of course, the fracture of that portion which had not been divided with the saw. The operation was perfectly successful.

Either of these means is vastly preferable to the *excision of the joint*, advised by some, as well as to the "*amputation de complaisance*" recommended by certain French surgeons. Neither excision of the joint nor amputation, two of the most dangerous operations of surgery, should be performed for the removal of what is merely an inconvenience, and my advice is this: refuse to the last any entreaty of the patient who may urge the performance of either of them upon you.

We come next to speak of the treatment of *false ankylosis*. And here, before undertaking the management of the case, or giving our prognosis, it is absolutely essential for the proper remedies to be applied that a correct diagnosis should be formed. When the stiffness of a joint is evidently the result of *rest*, no previous disease of its various constituents having occurred, the difficulty may generally be removed by passive motion, frictions with oleaginous substances, electro-magnetism or galvanism, the vapour bath, fomentations of various kinds, hot mineral baths, especially those of Virginia, and finally, in bad cases, by the use of an instrument similar to that applied in the case before you. When the limb is flexed, the screw must be worked so as to separate one part from the other; when it is straight, the motions of the screw are reversed, so as to approximate them. The disgusting practice of enveloping the part in the hot entrails of a recently slaughtered animal, recommended by Boyer and others, I need hardly tell you, should not be resorted to, inasmuch as it is productive of no benefit that cannot be obtained by less revolting remedies.

Where the joint is rendered motionless by the contraction of the skin after a burn, an ulcer, or an abscess, the treatment must be based upon the principles laid down when I called your attention to the subject of cicatrices; usually, but not universally, a plastic operation is required.

When previous inflammation of the extra-articulation tissues has given rise to stiffness, we must be exceedingly careful in our attempts at giving relief, or we may cause the disease to reappear. In all such cases I employ the screw of Stromeyer, along with the remedies usually resorted to in simple stiffness from rest; and there can never be a necessity here for the knife. Should the instrument cause pain or inflammation in the joint, I at once suspend its extending action, and merely employ it as I would a carved splint, to keep the part at rest, while at the same time I order leeches, cold applications, low diet, purging, &c., and never renew extension or flexion, as the case may be, until all traces of inflammatory action have disappeared. The practice of treating such cases by an extending apparatus is by no means a novel procedure; for we find that Hildanus, Lafond, Boyer and others, employed machines very similar to those made use of by us at the present time. It is true, however, that much has been done by surgeons now in active practice, especially Stromeyer, Lisfranc, Blandin, Amsbury, &c., to bring this method into general notice. In this country, Dr. Detmold, of New York, was the first to recommend it; and since that time it has been extensively employed by myself, Dr. Chase, and almost all the surgeons in the land; and I cannot too strongly recommend it to your attention. It is by no means uncommon to find, in cases of this form of ankylosis, deposites of coagulable lymph in the cellular tissue about the joint, which materially interferes with its motions; and before a cure can take place they must be removed. To effect this, frictions with unguentum hydrargyri or iodini, local vapour baths, but, above all, pressure with adhesive straps and a bandage, should be at once employed.

When the ankylosis is dependent upon a contraction of fascia, as we see in certain deformities of the knee, ankle, sole of the foot, elbow, palm of the hand and fingers, although mechanical measures may answer, still it is often necessary to resort to the knife. My own practice in those cases is, to make the attempt first by mechanical measures alone—the apparatus being modified to suit the case; and should these fail to accomplish the object in view in the course of three or four weeks, I then divide the fascia. The operation is very simple, and is performed with a small scalpel, which is introduced between the skin and the fascia, just as in the operation for club-foot, and then turned upon its edge, is made to incise the resisting tissue from without inwards. The knife is then withdrawn, the little puncture made in the integuments closed with adhesive plaster, and the extending apparatus applied. Gradual extension may be at once commenced, but we must carefully avoid being in too great haste to effect a cure, for fear of exciting, by our efforts, inflammation. It is also highly important to commence *passive motion* in the course of a few days after the extension is completed, and to *keep up extension* for some weeks after the limb has assumed its natural shape: unless attention be paid to these two points, the deformity will almost to a certainty reappear.

Stiffness occasioned by contractions of the muscles

and tendons, the result of rest, paralysis of antagonists, and sloughing, require to be treated with much discrimination. When the contraction is organic, and may be traced to rest of the joint too long continued, passive motion, the usual remedies for rigid joints, and lastly, in obstinate cases, the screw will generally accomplish a cure. It is in this form of ankylosis, especially where the knee-joint is involved, that tenotomy is so often employed; but the practice indicated as proper in the case before you, is that which you should adopt. First try the screw, and should the tendons and muscles resist for any length of time, then their division will be admissible. The operation is precisely similar to that described as the best when it becomes necessary to divide fascia.

When, on the other hand, paralysis of one set of muscles allows another to distort the joint and produce ankylosis, it is impossible, by any operation, or the use of any machine, to restore the part to its normal condition. In such cases we sometimes derive benefit from the application of the remedies supposed to exert a favourable influence in palsy, such as galvanism, electricity, frictions with veratria and strychnia, cold bathing, &c. In recent cases, I have sometimes found advantage from the application of a splint, which prevented the distortion of the limb, while the remedies for the paralyzed muscles were being administered. I have also tried in one case of palsy of the extensors of the hand, a contrivance recommended by Sir Charles Bell, and by its use prevented ankylosis, and enabled the patient to employ the member in his ordinary avocations. This machine was composed of four pieces of steel, of sufficient power to keep the fingers straight, when no effort was made to flex them, but not strong enough to resist the voluntary action of the flexors, placed along each finger, and fastened at one extremity into a bracelet around the wrist, and at the other into a common brass thimble, the fingers being inserted into the thimbles, and the bracelet fastened around the wrist; the springs took the place of the extensor tendons, and a glove being drawn over the whole, it was impossible to detect the presence of anything unnatural.

When sloughing, or destruction of the tendons or muscles by a wound, is the cause of the ankylosis, it is, of course, impossible to accomplish a cure. The same may be said of those cases in which the tendons are bound down very firmly by adhesions, the result of previous acute inflammation. When gout, rheumatism, sprains, luxations, synovitis, or disease of the cartilage or bones have given rise to capsular or intra-capsular ankylosis, the treatment is very similar to that already indicated, but we must expect a more tedious convalescence. The use, in these cases, of alkaline baths, is highly recommended by certain of the French surgeons. Finally, we should always inform the patient that usually, in false ankylosis, it is necessary to support the limb by mechanical means for some weeks or months after it has attained its proper shape, or until the weakened muscles, fascia and tendons, have regained their original tone; or, at least, are strong enough to prevent subsequent contraction of the part. During this period we should employ all the best remedies for giving tone and vigor to the weakened parts, such as frictions, cold bathing, electricity, &c.; and in many cases constitutional remedies are highly important.

The submucous muscle is not so bad to be eaten raw or underdone as the muscles of animal life.—*Dr. Knox.*

BIBLIOGRAPHICAL NOTICES.

An Essay on the Use of Nitric Acid, as an Escharotic, in Certain Forms of Hemorrhoidal Affections; illustrated by Cases. By John Houston, M. D., M.R.I.A., Surgeon to the City of Dublin Hospital; Consulting Surgeon to St. Peter's Dispensary, and to the Deaf and Dumb Institution; Lecturer on Surgery at the School of Medicine, Park-street; Member of the Society of Naturalists and Physicians at Heidelberg, &c. &c.

[The Dublin Journal of Medical Science, &c. No. LXVII. Vol. XXIII. March, 1843.]

Caustic applications in the cure of hemorrhoidal affections, once in great favour with the profession, have of late years been generally abandoned, and their employment even denounced. A confidence, however, in one of the class, *nitric acid*, in some forms of this troublesome affection, induces Dr. Houston to recommend its use in the present publication. He does so, not only from his own experience, but also on that of many of his medical friends, among others Mr. Cusack, "who have found it a remedy at once efficient, safe, and easy of application."

In the common form of hemorrhoids, a simple varicose condition of the veins of the rectum, the surgeon is rarely applied to. It is only in their complications or consequences that his aid is generally sought. It is in the complication called "the vascular tumour" that Dr. H. considers the application of the nitric acid beneficial. He regards it as an affection of the mucous membrane and submucous tissue, and treats it as such. He believes that it usually has, as its basis, a knuckle or bunch of varicose veins; but that also it may be "a distinct and independent growth, the result of some other irritation in this region."

"I have seen it covering the surface of one varix in a rectum, while others in the same bowel have been smooth, and free from any such growth,—the former being the source of much annoyance, the latter giving no trouble at all. I have also seen the affection, in young individuals particularly, where the veins were quite free from any varicose dilatation, but in whom, after a time, varices formed as the result of the irritation of the vascular tumour. And I have observed that, in almost all cases of inward piles of long standing, no matter whether the affection have begun originally as a varix, or as a degeneration of the mucous membrane, both affections come to be present in conjunction, reciprocally aggravating each other's severity."

Their number varies from one or more; and in some cases they are so numerous as to cause, by "their protrusion through the anus, a permanently widened state of that aperture, and a habitual prolapse, not only of the tumour itself, but also of a portion of the bowel."

"In the early periods of the affection, the tumours are so soft, compressible, and free from pain as scarcely to be discoverable by the finger when introduced into the rectum, and scarcely, therefore, to be deserving of the term, tumour; but, when of long standing, and especially when they have been permitted to remain down for protracted periods at the water-closet, they acquire an increase of firmness and

a tenderness which render them easily detected by such manipulations, and give them a tangible and permanent character. The dragging and pressure to which they are subjected in being pushed out and squeezed by the sphincter in defecation, renders them likewise prominent, and gives to them often a pedunculated or polypus-like form. The surface of the tumour is either granulated like a strawberry, or of a villous aspect. It is of a red colour, and, when protruded from the anus, bleeds from every pore as from a sponge. It is easy to satisfy one's-self on this latter head, by drying the surface of the tumour, when a fresh issue of blood instantly takes place from every point of its surface. The blood discharged, in such cases, is always of the arterial red colour,—a circumstance which often, in itself, indicates the true nature of the affection, and enables us to distinguish it from rupture of a varix. But, nevertheless, although this may be true as regards the direct issue of blood from the part, yet this very fluid may, if allowed to lie in the cavity of the rectum before being discharged per anum, acquire a dark red, and even a grumous character. The bleeding in the former is also of more frequent occurrence, appearing with every effort at defecation, and weakening the patient more by the frequency and persistency of the drain than by the quantity lost at stated periodical intervals, such as usually takes place in the bursting of varices from over-distension."

Dr. Houston believes that there are two varieties of organic lesions, which, though of different nature and origin, are equally productive of inconvenience, and susceptible of cure by the same means.

"The first is regarded by many as a sort of aneurism by anastomosis of the small vessels of the mucous membrane and submucous tissue exclusively, and may be independent from the first of varices of the general veins about the anus. Mr. Colles, who had an opportunity of examining the structure of one of those tumours in a person who died of another disease, says, "on slitting up the rectum, I saw three blood-vessels, each as large as a crow-quill, running for some way down the intestine and then dividing into a number of branches; these vessels ramified very profusely, and each seemed by interweaving of its branches to form one of these tumours. The trunks and branches were covered only by the lining membrane of the intestine. This examination shows us how inapplicable to this disease are the terms 'varicose tumors,' 'hemorrhoidal excrescences.'" This affection may occur in youth, and has been seen high up in the intestinal canal; but its most frequent seat is the lower part of the rectum. There is not originally or necessarily any pain arising out of it; but, by long exposure in the rectum to many sources of irritation, and by enlargement and prolapse from the anus, it runs into a state of actual disease. It differs from ordinary nævi in not being necessarily congenital, but resembles them too much in its persistent tendency to increase in growth. They are, both, affections which equally require operations for their removal.

"The second variety of the vascular tumour is of a chronic inflammatory nature, and may be best described by comparing it to the red, villous, tender, hemorrhagic surface exhibited by the mucous membrane of the eyelids in old cases of chronic conjunctivitis. With the latter, too, the resemblance is still farther established by its habit of secreting pus independently of ulceration. Such tumours are apt to form on old internal varices, which, by their projecting into the cavity of the bowel, expose the membrane covering them to more than ordinary pressure and irritation, and thereby become the direct cause of this morbid development. Once established in connexion with the surface of a varix, the two making between them a compound disease, the distressing qualities of such an affection are not slow in exhibiting themselves. Thus, in one case, in which there were several internal projecting varices, that only, on which this hypertrophied condition of the mucous membrane existed, gave annoyance, and on the removal of that and that singly, all hemorrhoidal distress subsided. The 'master pile' being removed, the others fell back into a state of painless quiescence. As in the foregoing variety, there is no relief for this affection but in destruction of the morbid growth. They both, therefore, differ from the diseased conditions which supervene on external varices, in having no disposition or power to undergo a spontaneous cure; and, consequently, are more likely, at some period of their course, to become objects of surgical interference."

The seat of the affection being then on the surface, is the use of the knife or ligature advisable? Is it not attended with risk, and is it not unnecessary? Should not such means be resorted to as will remove that surface without penetrating deeply, and risking the injury to large vessels! Our author thinks that the properties of *pure nitric acid* as an escharotic, point it out as singularly calculated to prove an efficient substitute for these severe remedies. The depth of the slough produced is easily regulated, and its lateral extension controlled by the immediate application of olive oil, which neutralizes its corrosive properties.

"The nitric acid, then, in its operation on the vascular tumour, combines in itself all the advantages possessed by excision or ligature, without any of their disadvantages. The tender, tumid, and bleeding surface is removed with little pain and without danger; and, in the cicatrization which rapidly follows, a radical cure is effected. But the good effects do not stop here; not only is a reparation of the worst part of the affection accomplished, but, by the bracing up of the general mucous membrane which follows the removal of the relaxed and diseased part of its surface, other varices which may be present are supported and reduced in bulk, and ulcers, or even fissures, are healed: and these secondary good results may be regarded as not the least important which have taken place on the occasion. The resumption of the natural action of the bowels, and the general improvement in health which follows the application of the acid to a single vascular hemorrhoid, even where several are left behind, show an improvement in the state of the rectum generally, greater than could be supposed to arise from the simple abstraction of one from among the number. The contraction of the mucous membrane following the removal of a portion of its extent, acts beneficially on the bowel, in the way, perhaps, that the contraction which follows the removal of it in the operation for prolapsus ani, acts; or in the way in which the removal of a piece of the scrotum, as recommended by Sir A. Cooper, operates in relieving varicocele; or, to use a still more familiar illustration, in that in which a laced stocking operates in remedying a varicose state of the veins of the lower extremities, viz., by bracing and giving support to the relaxed subjacent veins and other textures. The relief, too, which the bowel gains by the removal of such a

source of local irritation, contributes, no doubt, in a prominent degree, to the production of the same good results.

"The application of the acid may be made in the following manner. Let the patient strain as at the night-chair, so as to bring the tumours fully into view; and, while they are so down, let him either lean over the back of a chair, or lie down in the bent posture on the side on which the disease exists, with the buttocks over the edge of the bed. Let a piece of wood, cut into the shape of a dressing case spatula, be dipped in the acid, and then, with as much of the acid adhering to it as it will carry without dripping, let it be rubbed on the tumour to the extent desired. The due effect of the acid on the part is shown by its changing it to a greyish-white colour. If a superficial slough be all that is required, a single application may be enough; if a more deep one, then two or three applications of the wood dipped in the acid may be made in quick succession; which being finished, let the part be well smeared over with olive oil, provided beforehand for the purpose. The prolapsed parts should then be pushed back within the sphincter, the patient put to bed, and an opiate administered. The pain of the application is sharp and burning at first, but goes off in two or three hours, and does not again return in the same form. A general uneasiness about the anus, on motion, together with a slight sense of heat, fulness, and throbbing, are felt for a few days; and there may be some little feverishness; but I have not seen or heard of any more serious effects from the remedy. In another case, a slight stranguary, which was experienced for a short time, disappeared under the mist. camphoræc. opio. The symptoms following the application of the acid are usually so mild as not absolutely to require confinement to bed more than a few hours; although, for many reasons, such confinement may often be desirable. On the third or fourth day, a purgative draught should be administered, when the bowels will be found to yield to the medicine, generally without either pain or prolapse of the rectum. The progress after this to healing is rapid, and free from any disagreeable symptoms."

A number of carefully detailed cases are appended, which, after an ineffectual resort to all the ordinary palliative modes of treatment, were successfully combatted by the new method. These cases are all such that, by the present established practice, the ligature would have been employed, and severe and protracted suffering would have inevitably resulted.

"One important point in recommendation of the treatment by nitric acid is, its immunity from danger and from pain, or subsequent tedious confinement; for, although in the cases above cited, severe pain and confinement for a few days to bed are spoken of with candour, yet these conditions are not to be taken as the measure of the results to follow in the generality of such cases. The anxiety felt for the success of a new remedy, by increasing my apprehensions regarding it, magnified the sufferings of the patients in my eyes, and impelled me to take precautions for their mitigation beyond, perhaps, their real urgency or necessity, and certainly beyond what I have since experienced in other cases, which, in the confidence of success, I have regarded with more indifference; for, in fact, I have since several times known it to happen, that, after the first feeling of pain, the effect of the caustic, had subsided, the patient has continued to transact his ordinary affairs as usual."

When two or more vascular tumours exist, Dr. Houston thinks that both should be touched at the same time. The circumstances of the case must here be our chief guide.

"But, let me not be misunderstood as to the cases for which I recommend the use of nitric acid. I do not speak of it as a remedy for all kinds and degrees of vascular tumours or internal hemorrhoids; nor as one to supersede entirely the knife or ligature. There are cases, no matter how they may have commenced originally, in which, from long standing or other causes, all the textures in the neighbourhood—blood-vessels, skin, mucous membrane, cellular tissue, &c., have become so implicated, that scarcely any one part appears worse than another; and in which some operation, if any, of a more sweeping nature must be had recourse to. For such, the knife or ligature may, according to the choice of the practitioner, be employed. The acid is, according to my experience, adapted especially for cases of more common, every-day occurrence; cases in which the disease, although not involving immediate danger, yet keeps individuals miserable, and interferes with them in the discharge of their ordinary duties of life; cases, in short, which astringents will not cure, and for which, excision or ligature would be unnecessarily severe remedies."

A Treatise on the Structure, Economy, and Diseases of the Ear; being the Essay for which the Fothergillian gold medal was awarded by the Medico-Society of London. By George Pilcher, Late Lecturer on Anatomy, &c. &c. First American, from the second London Edition. With Notes. Philadelphia, 1843. Barrington & Haswell. 8vo. pp. 299.

The original of the present Treatise obtained the Fothergillian Medal, and its subsequent publication was owing to the advice of the friends of the author; that their advice was not injudicious is proved by the favour it has already received, having reached in a short time a second edition.

Mr. Pilcher thinks that

"It might have been reasonably anticipated that the immense improvements which have been introduced into Ophthalmic Surgery by the labours of some of the most distinguished members of our profession, would have induced the educated practitioner to investigate those numerous diseases to which the ear is obnoxious. Such, unhappily for the welfare of mankind, has not been the result; and thus it happens that even at the present time, in this country at least, Aural Surgery is either almost entirely neglected, or for the most part is left in the hands of the ignorant empiric. In consequence, therefore, of what must be considered a dereliction of duty on the part of English surgeons, the unfortunate sufferers from these distressing maladies are, in many instances, abandoned to their fate, or compelled to seek relief from the employment of nostrums which it would be but too charitable to regard as being merely harmless in their operation."

Until the diseases of the ear be subjected to general pathological principles in their treatment, and until they become part of the regular education of the physician, we agree with our author in thinking that it will "be in vain to hope for any considerable extension of the very limited knowledge which is at present possessed on this interesting class of diseases."

After some general observations on the sense and on the comparative development of the organ, the anatomy and the physiology of the ear are discussed in a good, condensed style. The subject of acoustics is touched upon as introductory to the function of hearing.

Part Second comprises the Abnormal Condition of the Ear; this includes the Development and Malformation of the Ear, and its several parts, and Deaf-Dumbness. The latter section is very interesting. With regard to the greater frequency of deaf-dumbness in males, our author observes,

"It is a curious circumstance that deaf-dumbness is much more frequent in males than in females, which is in violation of the ordinary law, that as the power of formation is weaker in the female fœtus than in the male, so are the deficiencies more frequent. Mr. May, the director of the deaf and dumb school at Vienna, stated that the proportion of deaf boys to girls was as four to one."

As respects its hereditary character he says:

"Congenital deafness does not appear to be hereditary, as most of the parents of deaf children have had no defect of their organs; and it is a rare circumstance to meet a case of a deaf child who was the fruit of parents, either one or both similarly effected. On the other hand, several children of one family will be thus defective, without any known cause, while the others will be perfectly healthy. Kramer relates the singular instance of 'a man and his wife, of the name of Hartness, both of them healthy, and having no hereditary predisposition to any disease of the Ear in their family on either side, who have five daughters and six sons; the latter were all born deaf-dumb, whilst the daughters, without exception, heard perfectly well. The mother of these eleven children is not aware of any circumstance that distinguished her pregnancies from each other, though the children are so remarkably differently endowed. She was always healthy and active. One of their children has married a deaf-dumb girl, but their marriage has been childless.' A healthy couple, residing in the parish of Bishopsgate, with a large family, have two of their daughters deaf and dumb; the eldest, about forty of years age, has married a *sourd-muet*, and become the mother of several children, all of whom enjoy perfect audition; the youngest, aged twenty-six, can hear a few sounds, and indistinctly utter a few words, which, however, appear to be simply vocalized. The roof of her mouth is very concave; the right membrana tympani is abnormally oblique and very transparent, the left is opaque, but natural in shape and size,—the Eustachian tubes are healthy,—it is probable that the diameter of the right tympanum is smaller than usual, and that malformation exists in both labyrinths."

The Third Part treats of the Diseases of the Ear.

Our author seems practically familiar with his subject. His descriptions are well written, and his pathological views and therapeutics are, in general, sound.

The work is handsomely illustrated by sixteen well-executed lithographs.

MORTALITY OF THE PLAGUE.

Of 97 patients treated in the lazzeretto at Alexandria in 1842, 62 were cured, and 35 died. Of the latter, 14 died immediately after the first visit, and 1 during convalescence, from another disease. Of 166 patients treated at their own homes, 151 died, and 15 only recovered.—*Il Filocamo* (Malta Journal.)

THE MEDICAL EXAMINER.

PHILADELPHIA, APRIL 1, 1843.

THE PROFESSION.

By the last British Medical Journals that we have received, we find the actual condition of the profession in England depicted in no very glowing colours, and the cry for Reform, general and clamorous. The alleged causes of this state of things are the faulty system of medical legislation, and the overstocking of the profession which exists; by which means a number of unqualified persons are introdueed into its ranks, who serve by their ignorance to impair its standing in the community, and encourage the progress of quackery, which everywhere at present seems to be making rapid strides in public favour.

In England there are four distinct orders of medical practitioners—pure physicians, pure surgeons, pure apothecaries, and general practitioners. Of these, the first three are represented by corporate bodies; the last has no legal existence. There is, hence, little community of interest, and no collective influence. To remedy this, the establishment of *One Faculty* has been proposed, and stoutly advocated. The advantages of this organization are incontestable, and would doubtless ameliorate eventually the condition of the profession, raise its standard, and restore it to the confidence and respect of the public.

The multitude of practitioners—the immense disproportion between the supply and the demand—is another cause powerfully contributing to the demoralization of the profession and the success of quackery. Impatient of "hope deferred," despairing of ultimate success in a legitimate way, or impelled by want, the physician forsakes the rugged and laborious path of rectitude, and is led to adopt the smoother and more attractive one of empiricism. He apparently loses nothing in public estimation, and secures a speedy subsistence, if not a fortune.

This state of things obtains as well in our own country as abroad, and the effects of the overstocked market are as much felt in New York or New Orleans as in London or Paris, and with identical results—a desertion into the ranks of quackery.

The following article, from the Gazette Medicale, of Paris, bears so strongly on the subject that we are induced to publish a condensed translation from the Provincial Medical Journal:

"On the 9th August, 1836, a royal ordinance was published to the effect—1, that no student should be permitted to take out his first inscription unless he had the diploma of bachelor of letters;* and 2, that no student should be admitted to his first examination for the degree of doctor of medicine unless he possessed the diploma of bachelor of sciences.†

The object of this ordinance was, avowedly, to raise the respectability of the medical profession in France from the state of depression to which the concurrence of various circumstances had reduced it.

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* For this diploma the student is examined during three-quarters of an hour in the Greek, Latin, and French languages; philosophy, ancient and modern history, and ancient and modern geography.

† For this diploma the student is examined in mathematics, physics, chemistry, zoology, botany, and mineralogy.

This depressed state was chiefly indicated by an evident diminution of *esprit de corps* in the medical commonwealth; by excessive competition amongst medical men; the influx of charlatans; relaxation of professional morality; and, finally, by the wretched condition of the art of medicine as a means of existence for its professors.

Such clear symptoms of moral and material decay could not fail to awaken the attention of all well-thinking men. Various plans of medical reform were concocted; the Chamber of Deputies was beset by petitions; severe measures of repression were demanded against quacks and backsliding professionals; and 'benevolent funds' were instituted for the succour of destitute doctors. The various plans thus imagined for the relief of the profession seemed excellent upon paper; but the difficulty lay in their execution. A law was promised, but that law still slumbers in the portfolio of the minister, and may, perhaps, never see the light.

The evils under which the profession laboured were, however, too pressing to wait the expectant treatment of the minister, and an attempt was made to remedy them indirectly by the ordinance already alluded to. The objects of this regulation were the same as those invoked by all classes of medical reformers, but its chief results were twofold. It tended in the first place to diminish the number of medical men; and in the second, to increase the respectability of the profession, by augmenting the amount of scientific instruction and the proofs of capability in each individual member of that profession.

This twofold object being attained, it was clear that most of the moral and material evils which beset the profession would be greatly alleviated, if not radically removed. The event has justified the prudent foresight which dictated the ordinance. The radical source of the abuses complained of—viz., the shameful increase of quackery, the degraded condition of the medical profession, and its utter worthlessness as a means of honorable livelihood; all these clearly depended on an over supply of medical practitioners. The instant that the supply considerably exceeded the demand, it followed, as a matter of necessity, that vast numbers of medical men were driven from the legitimate means of existence. The field, previously divided between them in a fair and peaceful manner, now became the scene of hot and desperate contest. The character of the profession was at once degraded, and a war of interests was substituted for an honorable competition of talent. Medicine was no longer regarded as a means of quiet, though dignified support; a few scandalous examples blinded men's eyes, and the science degenerated into the trade. The bonds of brotherhood being thus rent asunder, the commonwealth of medicine lost its character of fraternity, and became a battle-field where every man's hand was raised against his neighbour. Individual success was regarded as the sole test of merit, and the acquirement of wealth the sole object of existence. The effects of such a state of things were inevitable. Science, the cultivation of the understanding, and literature, were regarded as mere accessories; the student contented himself with the amount of technical knowledge requisite to pass his examination, and the noblest of professions sunk into the most degrading of trades. This picture may be somewhat highly colored, but the representation is faithful.

The over-crowding of the profession is evidently the source of the chief evils under which we labour; if this be admitted, the remedy is clearly indicated. The supply of medical practitioners must be reduced within limits somewhat commensurate with the demand for them. In a country like France no one would listen to any proposal for limiting the number of practitioners by legislative enactment; this is constitutionally impossible; but the same result may be attained indirectly by raising the standard of medical education, and thus cutting off the excess of candidates who have been attracted by the facility of entering the profession. Such, we repeat, was the object of the ordinance of 1836, which has completely realised the expectations founded on it. The following table illustrates the practical working of this regulation:—

Years.	University Pupils.	Pupils at Prov. Schools.	Total.
1835	1095	427	1522
1836	750	340	1090
1837	458	286	744
1838	295	301	596
1839 } 1840 } 1841 }	Nearly as in 1838.		
1842	321	307	628

From the preceding table, it appears that the effect of increasing the standard of preliminary education was at once to reduce the number of medical students from 1522 to 1090. This diminution continued during the years 1837 and 1838; and the number then continued stationary, having arrived at what may fairly be regarded as the normal standard. During last year the number of new students admitted at Paris was 200; at Montpellier, 98; at Strasbourg, 23. In the preparatory schools of the provinces the relative diminution was by no means so great."

INVARIABLE BENEFIT OF MINERAL ACIDS IN DROPSY.

Dr. Trusen, of Posen, in a memoir in a late number of Hufeland's Journal, states that he has found mineral acids, as recommended by Alix, Meyer, Barez, &c., of universal benefit in dropsy not dependent on disease of the respiratory organs, or extensive disorganization of the liver. The principal medicines of this class employed by M. Trusen are the acid-elixir of Haller and phosphoric acid. The former is useful in dropsies of an adynamic character, those consequent on intermittent fevers, and others due to checks of the perspiration or other secretions. The phosphoric acid is suitable in cases of dropsy owing to an altered condition of the blood, those supervening after diarrhœa, dysentery, chlorosis, &c. He has seldom occasion to give purgatives to patients under the influence of the above medicaments, which of themselves insure a free action of the bowels; but, in some obstinate cases, he has availed himself of the aid of alcoholic vapour-baths to produce a sudorific effect. M. Trusen remarks, in the course of his memoir, that the extensive tumefaction of the scrotum, which presents so marked a tendency to terminate in gangrene, yields, however, under the use of detergent lotions of vinegar, muriate of ammonia, and water.—*London Lancet*, Feb. 25, 1843.

HERPETIC PRURITUS.—In a very severe case of this obstinate disease which had tormented the patient for twelve years, and occupied the perineum, scrotum, and inner side of the thigh, M. Baroch had recourse to the following treatment with success:

Iodine, 15 grs.; hydriodate of potass, 40 grs.; dissolve in 5 oz. of distilled water; add spts. wine, 1 oz.

This solution was applied for a few hours, and produced a sensation of burning; the patient was soon relieved, and, with the aid of baths was cured in three weeks.—*Oest. Med. Wochen.*

RETROSPECT OF THE MEDICAL SCIENCES.

TREATMENT OF VESICO-VAGINAL FISTULA.

Dr. Reid read a paper on the vesico-vaginal fistula or fissure before the Westminister Medical Society. in the course of which, after adverting to the causes, seat, and semeiology of that unfortunate accident, he recommends the use of a simple India rubber bottle as likely to afford relief. The aperture forming the communication between the vagina and neck of the bladder is occasionally large, and the intention in using the instrument, therefore, would be, that it should effectually form a partition or complete plug between these two organs, thus preventing the constant flow of urine through it, and the consequent great irritation, inflammation, and thickening of the callous edges.

The apparatus consists of a common India rubber bottle of moderate size, but free, if possible, from those lines and ornamental tracings which are placed on some, as they render them more liable to burst on distension, owing to the unequal thickness. It should be of a pyriform shape, without any shoulders or sudden bulging out from the neck or stalk of the bladder, as the latter form interferes with the ready extraction of the instruments when required, or at least occasions unnecessary pain in removing it. To the neck of the bottle is attached a mount containing a female screw, at the side of which is a small stop-cock. The other portion of the apparatus consists of a small condensing syringe, of the shape and size of the common breast-pump, the distal end of which terminates in a male screw, corresponding to the one attached to the bottle. The latter being well oiled or larded, and the air pressed out of it, is folded longitudinally, and carefully passed up into the vagina, until the lower end or mount is at the vulva. A certain portion of air is now drawn up into it by the simple removal of pressure, but it is not sufficiently distended till the condensing syringe is fixed, and a few strokes of the piston used. The number required must depend on circumstances, but will soon be known by the patient complaining that the further distension begins to give pain. The stop-cock is now turned, the syringe disengaged, and a napkin applied to the vulva, and fastened as usual.

The bottle is to be removed for a short time every evening, previously allowing the air to escape by the stop-cock, the vagina to be gently syringed out with warm water, and the bottle, after having been washed, to be replaced. Should its presence at first cause pain or inconvenience, it may be obviated by complete rest, the use of the hip-bath, and by warm vaginal injections. The comfort resulting from the use of the instrument is soon perceived, as it prevents that constant flooding of water which had previously taken place, excoriating the parts, and rendering the bed and clothes almost unfit for use. At the commencement of the treatment, it may be advantageous to pass the catheter occasionally, should there be any difficulty in passing urine by the natural passage. The daily removal of the instrument after passing urine, and the washing out of the vagina, will tend to allay inflammation, and prevent the accumulation of any irritating secretion about the affected parts. If possible it is better to have a second bottle, using it on alternate days, allowing the one removed to remain in water for a time, and then to be exposed to the air until again required. It will be rendered more durable by encasing it in an oil-skin covering, or by coating it with wax.

Three cases are narrated by Dr. Reid, in which the adoption of this apparatus afforded relief.—*Lancet*, Feb. 18, 1843.

CAPACITY OF THE LUNGS.

At the Academy of Sciences, Paris, January 23, 1843, M. Bourgery read a memoir on the relation existing between the structure and fundamental capacity of the lungs in both sexes, and at various periods of life.

Experiments were made with a hydro-pneumatic apparatus on 70 persons (50 male, 20 female,) from which the following results were deduced:

The respiratory act, *cæteris paribus*, is more forcible in proportion to the youth and slender make of the individual. No condition of strength or health is capable of supplying the place of youth.

Respiration in the male is double the volume of that of the female for the same age. The maximum for both sexes occurs at the age of thirty years.

In a well-formed person of that age, forcible respiration represents the quantity of 2.50 to 4.30 litres for the male; and of 1.10 to 2.20 litres for the female; in the boy of fifteen years 2 litres; and in the old man of eighty 1.35 litres.* The volume of air required for ordinary respiration gradually increases with age. The ratios between the ages of seven, fifteen, twenty, and eighty, are geometric, and represented by the numbers 1, 2, 4, and 8. The well-formed adult respires habitually the quadruple of the young child, and the double of the female or child of fifteen years, while the old person respires the double of the adult. This progressive increase, or necessity for a greater volume of air, expresses the diminished power of the lung as an organ of hæmatosis; hence, the latter decreases from infancy to old age, in proportion to the following numbers: 1, ½, ¼, and ⅛.

In forced respiration the permeability of the lung to air presents two periods; one ascending from infancy to thirty years, the other descending from thirty to old age. The former increases in a regular ratio of 1, 2, and 3, from seven to fifteen and thirty years; the latter decreases from 3 to 2½ between thirty and fifty years; and from 2½ to 1¼ between fifty and eighty years of age.

Taken on the whole, the respiration is trebled within the space of twenty-three years in youth, and increases by 1-9th for each year. After manhood it diminishes by 2-5ths in twenty years, or by 1-100th for each year. From fifty to sixty years it decreases by 1-5th in ten years, or 1-50th for each year. And in old age, from sixty to eighty, it diminishes by nearly ½ or 1-20th for each year. This gradual decline of the respiratory power must contribute in great measure to the gradual extinction of the powers of life as old age advances.

This latter proposition is further confirmed by the fact that the ratio of ordinary to forcible inspiration diminishes as the age advances. At seven years of age this ratio is as 1 to 12; at fifteen, as 1 to 10; at twenty, as 1 to 9; at twenty-five and thirty, as 1 to 6; at sixty, as 1 to 3; at eighty years of age, as 1o ½ or ⅓. Thus, the young man has in reserve for violent exertion an immense respiratory faculty, while the aged person is quickly "winded."

The respiratory faculty is gradually worn out by the laceration of the capillary aerian and sanguineous

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* The *litre* is 1.700 of an English pint.

canals; this laceration occurs, in a greater or lesser degree, in all powerful respiratory efforts. It begins at an early period, and increases gradually to old age, as a simple consequence of repetition of the respiratory act. It is increased by all diseases of the lungs. In its most aggravated form, this state of the lung causes a circulation of imperfectly oxygenated blood, and reduces the decrepid octogenarian to the locular lung and imperfect respiration of the reptile.

PECULIAR APPEARANCES IN CATARACT.

Dr. Jacob called the attention of the society to an appearance which presented itself in the eye of a person upon whom he lately operated for cataract, in the City of Dublin Hospital. The man, thirty-three years of age, was, he said, what is called amaurotic, or, in other words, his vision was very defective, even in the other eye, which was free from cataract, and, therefore, he was unwilling to operate, from a conviction that he had an unsound retina to deal with; but at the earnest solicitation of the patient he consented to let him have the chance which the experiment afforded. The cataract was lenticular, and, although more of an amber tint than is usual at this time of life, was otherwise not uncommon. The lens freely broken up with the needle through the cornea, and was easily separated into pulp and fragments, some of which fell into the anterior chamber, and no inflammation requiring attention followed. In a month the greater part was absorbed, and in six weeks the whole, leaving a shred of opaque capsule attached to the margin of the pupil, but not large enough to interrupt the passage of light. As the cataract, however, disappeared, the iris became studded with delicate brilliant scales of metallic lustre, so numerous and large as to be easily visible with the naked eye, and still more conspicuous with the assistance of a lens. They were irregular in form, but with surfaces so plane and polished that they reflected the light freely, resembling, in a remarkable manner, the particles of mica in granite. The appearance continued until the man was discharged, having been visible for about a month, and may probably continue so for some time. Sight, as had been predicted, was not restored, the retina being unsound. Dr. Jacob reminded the society that earthy, and perhaps crystalline, deposits in the lens and its capsule were not very uncommon, and that they had been met of so dense a nature as to lead to the application of the term ossification to them, although not to be considered at all of the nature of real bone. They are probably phasphate of lime, or perhaps ammoniophosphate of magnesia with phosphate of lime, but that he left to the chemists to determine. He said that on another occasion, in breaking up a cataract of somewhat the same appearance, he was surprised to see a quantity of what appeared to be delicate needle-shaped crystals diffused among the fragments, but these disappeared with the cataract as it was dissolved.

He also exhibited a drawing of a capsular cataract, the consequence of injury, which he had removed successfully, and which had presented on the surface an appearance of such metallic lustre that he was obliged to make the artist represent it with silver leaf, and added that these brilliant cataracts, in a less marked form, were not very uncommon, but in all of them the disease was of long standing. Earthy deposits, he observed, were frequently found in the body of the lens in horses blind from cataract, consequent on inflammation. The shell of bone sometimes found within the choroid of disorganised eyes, and generally called ossified retina, he observed was probably of the same nature as these lenticular deposits. —*Trans. Surg. Society of Ireland, from Dub. Med. Press.*

RELATIVE VALUE OF QUININE IN LARGE DOSES, AS A REMEDY IN TYPHUS.

A commission appointed to examine into the correctness of a memoir addressed by Broqua to the French Academy of Medicine, reports that some of the cases cited in the memoir are not proved to have been of a veritably typhoid character, and in others no proof is adduced of the quinine administered having been the means of cure. The report of the commission (if not belied by the journal which informs us of its presentation) sarcastically enough remarks that "one interesting fact confirmed by Sig. Broqua's memoir is the *harmlessness* (l'innocuité presque constante) *of the sulphate of quinine* in large doses;" and it recommends that the memoir should be *honourably* shelved! In the discussion that followed its reading M. Piorry stated, that in typhus fever, with engorgement of the spleen, he had seen quinine prove serviceable, which had not been the case when the fever was unaccompanied with splenic lesion. M. Martin Solon, who had employed the remedy under the personal inspection of Sig. Broqua at the Hôpital Beaujon, admitted that in cases in which the fever assumed a remittent type quinine was useful, but that remittent typhus was rare,—at least at Paris. "Of five severe cases of typhus fever, in which quinine had been given, death had resulted in three instances, and in the two others, recovery had only taken place after a considerable lapse of time, and without any evidence to show that the sulphate of quinine had been the means of hastening it. In the post-mortem examinations of the subjects who had died (says M. Martin Solon,) I failed to detect any peculiar alteration that I could fairly attribute to the large doses of the sulphate; it had passed in a manner imperceptibly through the stomach and intestines. A symptom I observed in those who recovered from the disease was a remarkable depression of the circulation. In short, I consider the advantage attributed to the sulphate to be more than doubtful." Much doubt was afterwards expressed by several members of the Academy as to the *innocuity* of large doses of quinia or its sulphate; but finally the terms of the report were adopted, and the memoir was shelved by a majority of voices.—*London Lancet*, Feb. 25, 1843. *From Gaz. des Hop.*

TREATMENT OF TINEA FAVOSA.

The parasitical origin of this disease is regarded as demonstrated by the physicians of the General Hospital, Vienna. A division of this hospital is set apart for the treatment of chronic diseases of the skin, and the experiments there made in the treatment of tinea favosa seem to show that the local application of caustics (lunar caustic, caustic potass, &c.) is the only mode of treatment followed by beneficial results. Several cases were cured within two months by the local use of a saturated tincture of iodine.—*Prov. Med. Journal*, Feb. 4, 1843.

Blainville's definition of a ligament is "a tendon without muscles." His definition of a tendon was "a ligament, with a muscle attached."—*London Lancet.*